Characteristics of nerve agent VX

Nerve agent VX, which was stored at Newport Chemical Depot (NECD) in Newport, Ind., is a member of the organo-phosphate family, similar to present-day pesticides. It is a clear and odorless liquid with an appearance similar to that of motor oil. VX can become an aerosol (very small droplets) through explosion, or a vapor through ignition. It is heavier than water and evaporates 2,000 times more slowly.

VX is highly toxic in its liquid, aerosol and vapor forms. It is most hazardous when absorbed through the skin. As a vapor or aerosol, it can be inhaled and absorbed through the lungs. It also can be absorbed through the digestive system if eaten or swallowed.

VX is a rapid-acting, lethal nerve agent that affects the nervous system by interfering with the signals sent from the brain to vital organs and other parts of the body. VX affects the body by blocking the action of the enzyme acetycholinesterase (ACh). When the enzyme is blocked, messages from the brain are short-circuited at the nerve endings. As a result, hyperactivity occurs in the organs stimulated by these nerves. If VX enters the body, convulsions or death can result.

Atropine and 2-PAM Chloride are pharmaceutical antidotes that relieve the symptoms of VX exposure. They must be injected immediately after exposure to be effective. Skin decontamination should be done by washing the skin surface in warm or hot water at least three times. Use liquid soap and large amounts of water with moderate friction during the first and second washes. The third wash should be a rinse with large amounts of water.

On Aug. 8, 2008, the Newport work force successfully eliminated the nerve agent VX stockpile that had been safely stored at NECD for nearly 40 years.

NECD
Newport Chemical Depot

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